



MARSHALL STAR

Serving the Marshall Space Flight Center Community

Nov. 29, 2001

Inside the Star

- **SESC provides key support in Shuttle launches, page 5**
- **Center increases focus on project management training, page 6**
- **Winter Weather Awareness Week is Dec. 3-7, page 9**
- **Marshall's annual holiday reception Dec. 5, page 10**

Internal job fair to be held Dec. 5

from the Human Resources Department

The "Partnering for Success" Internal Job Fair will be from 9 a.m.-1 p.m. Dec. 5 in Bldg. 4203, in the left half of the cafeteria.

The event allows Marshall civil service employees to discuss career opportunities at Marshall within the Center Operations, Customer and Employee Relations, Flight Projects, Procurement, and Space Transportation/Space Launch Initiative directorates. You must be a civil servant with permanent status — gold badge will be checked at the entrance — to attend.

Partnering for Success representatives will be on hand to accept your NASA

STARS Resume and provide an overview of jobs available. Those qualified applicants who wish to pursue opportunities will be contacted after the event to meet one-on-one with hiring managers.

Bring a hard copy of your NASA STARS Resume with you. If you haven't completed your NASA STARS Resume, go to: <http://nasastars.nasa.gov>, access the NASA STARS resume builder, follow the instructions to complete the resume, and print the resume.

If you are unable to attend, e-mail your NASA STARS Resume to: Gene.Fundum@msfc.nasa.gov.

Stephenson to speak at 'Share the Opportunities' minority conference

Marshall Center Director Art Stephenson will be among NASA officials from across the agency meeting this week with minority university presidents and administrators to discuss possible opportunities for the minority university community.

"Share the Opportunities" is the principal theme for the NASA conference hosted by the Kennedy Space Center, Fla., for university presidents and top administrators from Historically Black Colleges and Universities, Hispanic Serving Institutions, and Tribal Colleges and Universities. The conference will be Thursday and Friday in Orlando, Fla.

Stephenson will speak Friday on unique educational opportunities for minority university involvement with the Marshall Center. He also will present an overview of

Marshall's programs and missions.

Dr. Louis W. Sullivan, president of Morehouse School of Medicine in Atlanta and Secretary of Health and Human Services in the George H.W. Bush administration, and Dr. James Shanley, president of the American Indian Higher Education Consortium in Virginia, are the keynote speakers at the conference.

NASA will identify competitive research opportunities available through research announcements and education announcements and activities. NASA also will identify the potential opportunities in small and disadvantaged business announcements and activities, and technology transfer and commercialization initiatives.

Conference attendees will have the added bonus of viewing the launch of Space Shuttle Endeavour, targeted for Thursday.



Combined Federal Campaign surpasses goal. Pledges total nearly \$560,000.

Descendent of legendary Cherokee chief, Marshall scientist learned history from family stories

by Sherrie Super

A direct descendant of a legendary Cherokee chief, Robbie Hood, an atmospheric scientist and hurricane hunter at the Marshall Center, learned Native American history the old-fashioned way — from stories passed down generation to generation.

“My mom was the first to tell me about the Trail of

Tears,” Hood said of the Cherokee’s forced relocation from the Southeastern United States to present-day Oklahoma in 1838-1839. Leading the Cherokees on their long, hard journey was Hood’s great-great-great grandfather, John Ross, the first elected chief of the Cherokee Nation.

Ross, whose name in Cherokee is Kooweskoowe, held the office from 1828 until his death in

1866. Thousands died on the Trail of Tears, which extends from Fort Payne, Ala., to Tahlequah, Okla. But the descendants of those who did survive — including Hood — comprise today’s Western Cherokee Nation with more than 220,000 registered members.

“There are more native Americans than most people realize,” said Hood, of the Marshall Center’s Global Hydrology and Climate Center at the National Space Science and Technology Center (NSSTC).

One-eighth Cherokee, Hood grew up about an hour from the Western Cherokee Nation’s capital of Tahlequah, and is registered to vote in tribal elections. Living near the heart of the Cherokee nation gave her opportunities to learn about her heritage. “Cherokees have a tradition of being culturally progressive,” she said. “They were one of the first tribes to embrace European settlers, the first to develop a written language and among the first to marry people from other cultures.”

Her famous ancestor, John Ross, was the product of such a union. Like Hood, he was one-eighth Cherokee, yet kept his Native American traditions and led the

Cherokee nation for nearly 40 years.

Hood believes things have come a long way since her mother was a child in the 1930s. “In the time of my parents’ generation,” Hood said, “Native Americans often felt pressured to hide their identity or heritage.”

In contrast, Hood’s children are encouraged to discuss and learn about their history. In Madison, Ala., where Hood and her family reside, their schools play an active role, with special monthly classes for Native American students. The classes, offered in kindergarten through eighth grade, have enabled her children — two daughters in junior high and one son in the first grade — to learn about their heritage, language and traditions.

One way Hood shows her heritage is by keeping the natural gray in her hair. “I started going gray when I was 13 years old,” she said. “My grandfather’s hair was snow-white when he was only 16. That’s one reason I don’t color my hair. It’s part of my family heritage.”

At NASA, Hood specializes in hurricane research, a path first inspired in 1969 after her family moved to Picayune, Miss. A seventh-grader at the time, she experienced a hurricane’s power firsthand when Hurricane Camille — the second-strongest hurricane to hit the United States in the 20th century — left her family and many others without electricity for two weeks.

“I learned that no matter how technically advanced our society becomes, we’re always affected by weather,” she said. After working as a meteorologist and university researcher, Hood joined NASA in 1987 as an atmospheric scientist at the Marshall Center, where she has participated in several NASA studies that seek a better understanding of our weather.

Most recently, she served as lead mission scientist in NASA’s fourth Convection And Moisture Experiment (CAMEX) study — a mission that united researchers from 10 universities, five NASA centers and the National Oceanic and Atmospheric Administration toward the common goal of improving hurricane prediction and understanding.

Hood has an associate’s degree in physics from Crowder College in Neosho, Mo., a bachelor’s degree in atmospheric science from the University of Missouri in Columbia and a master’s degree in physical meteorology from Florida State University in Tallahassee. She is married to Michael Goodman — a fellow NASA Marshall atmospheric scientist.

The writer, employed by ASRI, supports the Media Relations Department.



Robbie Hood

Reaffirmation of 'Valuing of NASA Personnel'

by Dan Goldin

Editor's note: Former NASA Administrator Dan Goldin made the following comments Nov. 5.

NASA has long been committed to fostering a culture that is free of discrimination and built on trust, respect, teamwork, communication, empowerment and commitment. The recent tragedies wrought by terrorist attacks on our nation have made this more important than ever before. It is essential for us — as members of the NASA family — to rededicate ourselves to a spirit of unity with respect for every individual, and support for each other.

This is what has made this Agency so strong and effective through the years. As our nation moves forward in the days and weeks ahead, nothing must be allowed to diminish the unity of our NASA family or the nation as a whole.

Unfortunately, in the aftermath of these tragedies the nation has witnessed numerous acts of discrimination against Arab and Muslim Americans. While we as individuals are angry and pained by recent events, we must not direct our anger and pain toward individuals just because they are, or we believe them to be, Muslim, or of Arab descent.

None of us wants to be stereotyped or targeted because of who we are, what we believe, or a simple fact of birth.

As President Bush stated in his address to Congress and the nation in the

aftermath of the attacks, America respects the faith of Muslim Americans and Muslims throughout the world. We respect all religious faiths whose teachings are good and peaceful. These recent acts of discrimination against Arab and Muslim Americans are examples of bigotry and prejudice directed at particular individuals and their places of worship, based solely on those individuals' ethnic backgrounds and religious beliefs. These acts demonstrate, yet again, the insidious nature of discrimination and harassment; in this case, discrimination based on national origin and religion.

Therefore, I want to take this opportunity to emphasize that discrimination must not be allowed to touch our NASA family in any way. I must reiterate that NASA has zero tolerance for bigotry, harassment, stereotyping and discrimination based on nonmerit factors.

I am calling on all NASA managers to rededicate themselves to providing a civil work environment which gives every member of our NASA family a feeling of security and mutual respect. Ensuring equal opportunity for each of us to work and excel while on NASA premises continues to be of paramount concern to me.

Opportunity must be provided regardless of race, color, age, sex, national origin, religion, or disability, notwithstanding the current tragedy. We must all step up to the challenges of our diverse



Dan Goldin

workforce and our constantly changing world to recognize the value of all of our employees.

It is with these concerns in mind that I reaffirm NASA's commitment to ensuring equal opportunity and to fostering a culture of respect. That respect must be built on trust and cooperation. That respect includes valuing the individuality of all members of the NASA family and their rich cultural, ethnic and religious diversity. I ask each of you to set the tone and lead by example in your workplace. I ask you to eliminate all forms of prejudice, make sure that civility is practiced, and not allow the course of events to alter in any way our commitment to unity and to each other—no matter what difficulties and challenges may lie ahead. I will do my part, and once again, I challenge you to do yours.

NASA selects 126 innovative small business projects

NASA news release

NASA has selected 126 research proposals for negotiation of Phase 2 contract awards for its Small Business Innovation Research (SBIR) Program. The selected projects, which have a total value of approximately \$75 million, will be conducted by 105 small, high-technology firms located in 28 states.

The goals of this NASA program are to stimulate technological innovation, increase the use of small business — including women-owned and disadvantaged firms — in meeting federal research and development needs, and increase private-sector commercialization of innovations derived from

federally funded research.

A total of 259 proposals were submitted by SBIR contractors completing Phase I projects. These proposals were evaluated to determine that they met SBIR Phase I objectives and are feasible research innovations for meeting agency needs.

Phase 2 continues development of the most promising Phase I projects. Selection criteria include technical merit and innovation, Phase I results, value to NASA, commercial potential and company capabilities. Funding for Phase 2 contracts could be up to \$600,000 for a two-year performance period.

A listing of the selected companies can be accessed on the Internet at: <http://sbir.nasa.gov>

Memphis, Tenn., child who built models of lunar landers, now builds real space hardware

by Tracy McMahan

Growing up in Memphis, Tenn., Susan Horn — fascinated by the Apollo Moon landings — built models of the lunar lander. This week, equipment Susan Horn Spencer helped to build will carry experiments into orbit via NASA's Space Shuttle Endeavour.

"I remember writing an essay in Janice King's class at Harding Academy in Memphis on what I wanted to do when I grew up," recalls Spencer, a systems engineer for Marshall's Flight Projects Directorate.

"I said I wanted to work for NASA. Now I'm living that dream."

Spencer, her husband Jeff — also an engineer at Marshall who works on the Space Shuttle Main Engines — and their two children will be at Kennedy Space Center in Florida to watch as the Shuttle lifts off with hardware that Spencer helped design, manufacture and test: the Lightweight Multi-Purpose Experiment Support Structure Carrier. Spencer was among those who prepared the carrier to transport experiments inside the Shuttle for its first flight, now set for launch Thursday on the STS-108 Space Shuttle mission.

"Getting the lightweight carrier ready for its flight on the Shuttle has been one

of the highlights of my career," says Spencer. "The combination of a talented design team and the close coordination among people at five NASA centers made it possible to get this new carrier ready for its maiden flight in less than a year."

The Lightweight Multi-Purpose Experiment Support Structure Carrier makes it possible to carry more science experiments in the Shuttle or quickly deliver spare parts to the International Space Station.

When the Shuttle returns to Earth with the lightweight carrier and its experiments in December, Spencer and her team will evaluate how it performed on its first flight. They'll be looking for ways to improve the carrier. For example, they want to add features allowing the Space Station's robot arm to pick up the carrier to move it from the Shuttle to remote locations on the Space Station. This would make it easier for astronauts to unload spare parts and move them to the Station. It would also make it possible to do experiments on different parts of the Station's exterior structure.

Spencer began her career at NASA in 1989 and has worked on such projects as studying future space transportation systems, lunar telescopes and scientific spacecraft. She has a bachelor's degree in mechanical engineering from Christian



Susan Spencer

Brothers University in Memphis, and attended high school at Harding Academy.

"I was always interested in math and science, so becoming an engineer was a natural choice for me," says Spencer.

When Spencer is not getting equipment ready for Space Shuttle flights, she enjoys making music. She plays the French horn in the Madison Community Band and hand bells at her church. The Spencers live in Madison. Her parents, J.C. and Myra Horn, formerly of Memphis, now reside in Paris, Ark.

The writer, employed by ASRI, supports the Media Relations Department.

Sensors to monitor health inside the human body under development

NASA news release

NASA has selected seven researchers to receive grants totaling approximately \$11 million over three years to develop new biomedical technologies to detect, diagnose and treat disease inside the human body.

The selected proposals will develop and study nanoscale (one-billionth of a meter) biomedical sensors that can detect changes at the cellular and molecular level and communicate irregularities to a device outside the body.

Such technological advances will enable NASA to monitor and treat the health of astronauts in space and — on Earth — provide the National Cancer Institute (NCI) with new technologies to identify and treat specific types of cancer

at their earliest stages.

Sponsored by NASA's Office of Biological and Physical Research in collaboration with NCI, this research program offers scientists the opportunity to collaborate on the development of minimally invasive microscopic sensors that will advance and support health monitoring and patient care.

NASA and NCI received 53 proposals in response to their solicitation. These proposals were all peer-reviewed at NCI by scientific and technical experts from academia, government and industry.

A list of the selected principal investigators, institutions and research titles (by state) can be found on the Internet at: <http://SpaceResearch.nasa.gov>

Marshall's Shuttle Engineering Support Center is key component in Space Shuttle launch

by Lynnette Madison

When Space Shuttle Endeavour lifts off on its scheduled mission Thursday, a group of NASA engineers — gathered in three windowless rooms deep inside a cavernous, non-descript government building at the Marshall Center — will provide an extra set of eyes and ears to ensure a safe and successful launch.

For every launch since that first historic launch of a Space Shuttle in 1981, engineers at Marshall have closely monitored Shuttle propulsion system data at its Shuttle Engineering Support Center, an area carved out of Marshall's Huntsville Operations Support Center.

"We never forget that safety is our primary focus," says Jolene Martin, Marshall's Shuttle Integration manager and a member of Marshall's launch support team. "By working with the team at Kennedy Space Center in Florida, our group at Marshall has helped keep the countdown on track and prevent launch delays and cancellations by identifying early on potential propulsion concerns and resolving those concerns."

For each Shuttle launch, Marshall management and technical personnel and contractor personnel support the Mission Management Team at Kennedy Space Center.

During pre-launch preparations, engineers at Marshall's support center monitor the Shuttle's main propulsion elements — the Main Engine, the External Tank, the Reusable Solid Rocket Motor, the Solid Rocket Booster and the Main Propulsion System — to identify and analyze any hardware related problems. The Marshall Center is home to the Space Shuttle propulsion system — where it was designed, developed and is still maintained.

"To achieve orbit, the Shuttle must accelerate from zero to a speed of almost 18,000 mph (28,968 kilometers per hour) — a speed nine times as fast as the average rifle bullet," says Martin. "To make that happen, we work as a team with the Space Shuttle Mission Management Team at Kennedy."

Marshall's Shuttle Engineering Support Center was first used during the early 1960s' Saturn rocket era. Even for the first Shuttle flight, the center still housed a computer main frame and monitors similar to those seen in 1960s sci-fi movies. Today the facility houses a sophisticated communications network that ties the Marshall Center to NASA and its contractor personnel throughout the country, providing the up-to-the-second information needed for a safe and successful launch.

"We work so closely during launch that it's almost as if we are holding hands ... except it's by telephone and computer," says Scott Schutzenhofer, manager of the Shuttle Engineering Support Center. "We've actually become more than a set of eyes and ears because we have such a high level of expertise. Our engineers look at propulsion data every day. They've seen it all ... what works, what doesn't work, and why it does or doesn't

'We never forget that safety is our primary focus. By working with the team at Kennedy Space Center in Florida, our group at Marshall has helped keep the countdown on track and prevent launch delays and cancellations by identifying early on potential propulsion concerns and resolving those concerns.'

— Jolene Martin

work. That makes the support center a key component during the launch."

The Kennedy-Marshall-contractor network also allows the launch team to simulate propulsion situations before actual launch, providing additional data for the team.

"That level of expertise has helped us 'earn our salaries' during launch," adds Schutzenhofer. "We definitely make a contribution because we know the nitty-gritty details — every little part of all four elements."

For the 50 people who staff Marshall's Shuttle Engineering Support Center at launch, show time begins at T minus 10 hours — about 12 hours before launch — and continues through launch, Main Engine cutoff and separation of the External Tank.

Launch day begins with a teleconference with the Kennedy Center's Mission Management Team to discuss the launch weather conditions and any other concerns. Then, the eyes of the support center's engineers are glued to computer monitors as propellant loading begins on the Shuttle. At T minus 20 minutes, the launch team conducts a poll of the managers of the four propulsion elements to determine if any group is working any issues. Another poll is taken at T minus 9 minutes. If nothing is reported, countdown continues to launch.

Even when the Shuttle has lifted off the pad, engineers remain focused on the flight. Marshall's Space Shuttle Projects Office is responsible for the first eight-and-a-half minutes of each Shuttle launch. During those crucial 510 seconds, the Reusable Solid Rocket Motors generate enough energy to power 87,000 homes for a full day, the Solid Rocket Boosters accelerate the Shuttle to 3,000 mph (4,828 kilometers per hour), the External Tank feeds 535,000 gallons (202.5 deciliters) of liquid propellants to the Main Engine, and inside the combustion chambers of Shuttle's three main engines temperatures are hot enough to melt steel.

Once the Shuttle's main engines reach cutoff, engineers at Marshall's Engineering Support Center begin gathering reams of data generated by the launch. The information is then cataloged for post-flight study.

"The Shuttle is a great vehicle, but we never forget that it takes a lot of tender loving care," says Martin.

The writer, employed by ASRI, supports the Media Relations Department.

Center increases focus on project management training

from EODD

In anticipation of an increased Agency focus in the areas of project management, systems engineering and cost control, Marshall Center Director Art Stephenson has asked Center organizations to prepare training plans for employees that would benefit from this training.

The Customer and Employee Relations Directorate's Employee and Organizational Development Department (EODD) has identified a series of core programs in the areas of project management, systems engineering and cost control to support this effort.

From Dec. 3-12, EODD will reactivate a targeted version of the Center training survey to identify requirements for these programs. Targeted programs include:

- Advanced Project Management
- Budget Overview (NASA/MSFC)
- Comprehensive Systems Skills Initiative (CSSI)
- Configuration & Data Management, Introduction
- Continuous Risk Management, Overview
- Contract Administration, Introduction
- Foundations of Project Management
- Managing a Technology Program
- Program Management
- Project Analysis
- Project Management
- Schedule Assessment & Analysis
- Scheduling Fundamentals
- Space Project Cost Estimating & Analysis
- Systems Engineering Overview
- Work Breakdown Structure (WBS), Introduction

Individuals needing this training that have not previously requested it as part of the fiscal year 2001 survey are encouraged to input their needs at this time.

"The collected data will be used to schedule the appropriate number of sessions and provide individuals with additional information on programs once scheduled," said John Heath of EODD. "There is a lot of good training in these areas already out there. We want to fully leverage these existing programs and help ensure that individuals that need this training receive it."

Upon conclusion of the survey, directorates and staff offices will be able to request a consolidated list of their employees' training requirements. Individual development plans can also be automatically generated for employees.

For additional information on the training survey or project management, systems engineering and cost control programs call 544-6324.

NASA/French ocean-observing satellite set to soar

NASA news release

The Dec. 7 launch of Jason 1, NASA's newest oceanography satellite, will continue the mission started by Topex/Poseidon to monitor global climate interactions between the sea and the atmosphere.

Jason 1 will monitor world ocean circulation, study interactions of the oceans and atmosphere, improve climate predictions and observe events like El Nino. Jason 1 is a joint U.S./French oceanography mission.

Since the oceans are so large, remote sensing from satellites has proved to be the only way to get global information about these vast, hard-to-measure expanses. Spaceborne altimeters, such as the Poseidon 2 instrument that Jason 1 carries, can calculate ocean heights to within centimeters.

Jason 1 is the follow-on to the very successful Topex/Poseidon satellite, a U.S.-French mission that has been making precise measurements of ocean-surface topography since 1992.

The ocean and atmosphere transport heat from the equatorial regions toward the icy poles, and the atmosphere sends heat through a complex, worldwide pattern of winds. As these winds blow across the oceans, they help drive the currents and exchange heat, moisture and gases with the water. While winds create daily, short-term weather changes, the oceans have a slower, much longer-lasting effect on climate. The powerful forces of wind and water combine to help regulate the planet's climate.

Accurate observations of sea-surface height and ocean winds provide scientists with information about the speed and direction of ocean currents and the heat stored in the ocean, which in turn reveals global climate variations. Jason 1 will help scientists in their quest to understand these global climate forces.

Jason 1 is a joint project between NASA and France's Centre National d'Etudes Spatiales. The U.S. portion of the mission is managed for NASA's Office of Earth Science, Washington, by the Jet Propulsion Laboratory, Pasadena, Calif.

More information about the Jason 1 program is available at:

<http://sealevel.jpl.nasa.gov> and

<http://jpl.nasa.gov>

FY2002 Technology Investment Program calls for proposals

Marshall's Technology Transfer Department is inviting proposals for well-defined activities clearly linked to Marshall roles and missions for participation in the fiscal year 2002 Technology Investment Program.

The program provides support for in-house new and emerging technologies. The key selection criterion for projects is the requirement for a high commercialization potential. The goal is to provide the needed resources to advance this "potential" into "near-term and obtainable" commercialization.

Participation is open to all civil service employees with projects meeting the defined program criteria. Projects — with a goal of accelerating the technology commercialization readiness level of the technology — should be one-year efforts, and will be required to obligate and fully cost by the end of the fiscal year.

Proposals are due in the required format to Cindy Campbell, the program coordinator, no later than Dec. 10. Selections will be made from submitted proposals in accordance with selection guidelines. All selected projects will be required to follow defined program participation guidelines.

Review Program Guidelines for complete details and instructions for submitting proposals at:

<http://techtran.msfc.nasa.gov/CDDF/techtips.html>

For more information, call Campbell at 544-0144.

NASA announces research grants in microgravity fluid physics

NASA news release

NASA has selected 35 researchers to receive grants to study microgravity fluid physics that may result in beneficial applications for long-duration missions, exploration of other planets and enhancing life on Earth.

The grants, totaling approximately \$14.4 million over four years, offer investigators the opportunity to use low-gravity environments to enhance understanding of fundamental physical and chemical processes associated with space flight.

Researchers will use NASA's microgravity research facilities such as drop-tubes, drop-towers, aircraft flying parabolic trajectories and sounding rockets, with the goal of working toward experiments on the International Space Station and Space Shuttle flights.

This research is sponsored by NASA's Office of Biological and Physical Research, which solicited proposals to conduct ground- and space-based research in fluid physics.

NASA received 209 proposals in response to this research announcement. The proposals were all peer-reviewed by scientific and technical experts from academia, government and industry.

A list of awardees (by state) and their institutions and research titles can be found on Internet at:

<http://SpaceResearch.nasa.gov>

Chandra team receives performance award

Fred Wojtalik, left, presents Outstanding Performance Awards to Russell Stone, Larry Mullins, and Steve Evans for their support of the Chandra X-ray Observatory.



Photo by Jeff Wolfe, NASA/Marshall Space Flight Center

Energy Stars identify, promote energy-efficient products

What is Energy Star and its significance?
Answer: It is a label that gives promise for a better future.

Energy Star was introduced by the U.S. Environmental Protection Agency (EPA) in 1992 as a voluntary labeling program designed to identify and promote energy-efficient products. The goal was to reduce carbon dioxide emissions by putting less of a demand on energy production.



In 1996, the EPA partnered with the U.S. Department of Energy to promote the Energy Star label. Each agency took on the responsibility for particular product categories. Energy Star has

expanded to cover new homes, most of the buildings sector, residential heating and cooling equipment, major appliances, office equipment, lighting, consumer electronics and is expanding into other areas.

Consider the impact. If all consumers, businesses and organizations in the United States made their product choices and building improvement decisions with Energy Star over the next decade, the national annual energy bill would be reduced by about \$200 billion. In addition to money savings, that also results in a sizeable contribution to reducing air pollution and protecting the Earth's climate for future generations. For more information, visit the Web at: www.epa.gov/nrgystar

If you have an energy tip that you would like to share with the Marshall Star readers, send it to:

cedreck.davis@msfc.nasa.gov or
juergen.haukohl@msfc.nasa.gov

Marshall bids farewell to Joe Rothenberg

The Marshall Center team said farewell to friend, role model and mentor, Joe Rothenberg Nov. 20 at the U.S. Space & Rocket Center.

Rothenberg, NASA's associate administrator for Space Flight, will retire Dec. 15.



Photos by Doug Stoffer, NASA/Marshall Space Flight Center

Jody Singer, left, assistant manager of the Space Shuttle Project Office, presents a memento to Joe Rothenberg at the farewell reception Nov. 20.



Charles Scales, left, director of Marshall's Equal Opportunity Office, and his wife, Bunny, right, say goodbye to Rothenberg.



Scott Phillips, right, a contractor with Lockheed Martin's Logistics Engineering, discusses the Space Shuttle model he made for Rothenberg.

It helps to be prepared when cold weather hits

from the National Weather Service

Dec. 3-7 is Winter Weather Awareness Week in Alabama. As a Southern state, Alabama may not be thought of as directly impacted by severe winter weather. However, winter weather has been a major cause of weather related deaths in Alabama. Many remember March 1993, when Alabama was severely impacted by a record snow storm.

Now, before we get into the heart of winter, is the time to prepare for the dangers and hazards a winter storm can bring.

Cold winter facts for Alabama

Alabama is no stranger to winter's deadly grip. Severe winter weather conditions can affect some or all of the state. Each year weather patterns bring winter weather threats to the state. Alabama was fortunate during the winter of 2000-2001 to experience only a couple of significant winter storm threats that created problems for the northern portion of the state.

In March 1993, the state was held in the grip of record snowfall and record cold when more than a foot of snow blanketed Central Alabama and completely paralyzed a large section of the state. The strong wind that accompanied the heavy, wet snow downed trees and power lines, leaving many people without electrical service for days. The heavy snowfall was accompanied by record-breaking cold. Activity came to a complete halt in and around Birmingham, Anniston and Tuscaloosa for two full days until the snow began to melt and emergency equipment could begin to clear roadways. When it was over, 14 people had died, property damage exceeded \$50 million, and every square inch of Alabama had seen snow.

Winter storm safety rules

Keep ahead of a winter storm by listening to the latest weather warnings and bulletins on radio and television stations. Be alert to changing weather conditions and avoid unnecessary travel.

- Check battery powered equipment. You may have to depend on a portable radio or TV for weather information. Also, check emergency cooking facilities and flashlights.
- Check your supply of heating fuel.
- Check your food and stock an extra supply. Your supplies should include food that requires no cooking or refrigeration in case of power failure. Consider high-energy foods such as dried fruit or candy. Don't forget prescription medicines or other specialty items including first aid items.
- Prevent fire hazards due to overheated coal or oil burning stoves, fireplaces, heaters or furnaces. Remember, in winter storms, emergency equipment can be hampered by extreme weather conditions, too, and often can't respond as quickly.
- Stay indoors during storms and cold snaps unless you are in

good physical condition. Avoid overexertion, especially when shoveling snow.

- Make necessary trips for supplies before the storm develops, or don't go at all. Arrange for emergency heat in case of power failure.
- Dress to fit the season. Wear layered, loose-fitting clothing. Wear a hat, scarf and mittens.
- Winterize your home by caulking around openings, installing storm windows and adding insulation.
- Get your car winterized before the storm season begins. Maintain a checklist of the preparation required. Keep water out of your fuel by keeping your gas tank full.
- Carry a winter storm car kit, especially if you plan cross-country travel or anticipate travel in northern states. Items to consider include a mobile phone and charger, blankets or sleeping bags, flashlight and batteries, first aid kit, non-perishable foods, extra clothing, window scraper, water, road maps, small shovel, and kitty litter or sand for traction.
- If the storm exceeds or even tests your limitations, seek available shelter immediately. Plan your travel and select primary and alternate routes.
- Check the latest weather information before departing, and drive carefully and defensively. Avoid traveling alone, and be sure someone knows your travel plans and route of travel.
- Don't forget your pets or livestock. Move animals to sheltered areas. For pets, bring them indoors or provide some form of heat. Provide fresh water since many pets die of dehydration in winter storms.

To keep ahead of the storm, listen for winter weather advisories

- **Winter Storm Watch:** Severe winter conditions, such as heavy snow and/or ice, are possible within the next day or two. Prepare now.
- **Winter Storm Warning:** Severe winter conditions have begun or are about to begin in your area. Stay indoors.
- **Blizzard Warning:** Snow and strong winds will combine to produce a blinding snow — near zero visibility — deep drifts and life-threatening wind chill. Seek refuge immediately.
- **Winter Weather Advisory:** Winter weather conditions are expected to cause significant inconveniences and may be hazardous. If caution is exercised, these situations should not become life-threatening. The greatest hazard is often to motorists.
- **Frost/Freeze Warning:** Below freezing temperatures are expected and may cause significant damage to plants, crops or fruit trees. In areas unaccustomed to freezing temperatures, people who have homes without heat need to take added precautions.

Relive classic holiday setting

Marshall's annual holiday reception Dec. 5

Picture the holidays in a small hometown, in a special city you once visited, in one of those holiday classic movies, or on a holiday card. Remember the shops and the excitement?

Marshall's major organizations have worked to recreate just such a holiday village for this year's annual holiday reception being held from 1-3 p.m. Dec. 5 at Bldg. 4752. There will be entertainment, good food, fun and fellowship.

Center employees, retirees and contractors are invited to participate in the festivities.

Donations of nonperishable food items for the North Alabama Food Bank will earn raffle tickets for prizes.

Transportation will be provided every 15 minutes beginning at 12:30 p.m. and ending at 3:30 p.m. for all Marshall team members attending the reception from the following locations.

- Stop No. 1: Bldg. 4200, west side (main loop)
- Stop No. 2: Bldg. 4203, north loop
- Stop No. 3: Bldg. 4250, south side; Bldg. 4207, northeast
- Stop No. 4: Bldg. 4705, south side; Bldg. 4708, northwest; Bldg. 4707, north side
- Stop No. 5: Bldg. 4493, main (north side); Bldg. 4483; Bldg. 4481, west end; Bldg. 4471, east end
- Stop No. 6: Bldg. 4612, west side; Bldg. 4610, north side
- Stop No. 7: Bldg. 4487, main (south side)
- Stop No. 8: Bldg. 4663, main (north side); Bldg. 4650, east side
- Stop No. 9: Bldg. 4666, main; BAC49 south side (parking lot entrance)



Buses and vans will drop off and pick up passengers at Bldg. 4752. Individuals who need special assistance with transportation may call 544-8294.

Make this season a time to boost your career

The holidays can be the perfect time to boost your career. Between gift-giving and office parties, there are plenty of opportunities to get people to remember who you are and where your career interests lie. Here are a few potential opportunities.

- **Office party:** More than three-quarters of companies will hold holiday parties this year. Attend, but remember these few things: don't booze it up, don't talk shop the entire time, and don't over- or under-dress.

- **Cards:** Sending holiday cards is a great way to acknowledge those who've helped your career in the past year and to reconnect with business associates. If you're uncertain about religious affiliations, think about sending cards that eliminate any religious references, such as New Year's cards.

- **Gifts:** A little caution here. Determine who you want to give a gift to (clients, co-workers, bosses) but first make sure they're allowed to receive gifts. Some federal positions are banned from accepting gifts from groups or individuals that could have a conflict of interest. Then use your best judgment on getting an appropriate gift that serves as a token of appreciation. And don't expect a gift in return.

— Adapted from the *Career Journal*

One employee nominated for Council position

One Marshall employee responded to the request for petitions to fill the vacancy on the NASA Exchange Council.

Larry Gagliano, of Marshall's Flight Projects Directorate, submitted a petition for the vacancy.



Gagliano

Center Announcements

FEHB Open Season

The 2002 Federal Employees Health Benefits (FEHB) Open Season continues through Dec. 10. This is an opportunity to enroll, change plans or change from self only to family coverage. All changes during the open season will be effective Jan. 13, 2002. For more information, you can access the OPM Web site at www.opm.gov/insure/02/ or call Debbie Allen at 544-7536.

TSP Open Season

Thrift Savings Plan (TSP) Open Season continues through Jan. 31, 2002. This is a chance to start or change the amount of your contributions to your Thrift Savings Plan account. Changes will be effective Jan. 13, 2002. Employees are encouraged to submit changes via the Web at: www.employeeexpress.gov. For more information, call Ginger Martin at 544-5654, or Debbie Allen at 544-7536.

Holiday events

Marshall's Tree Lighting Ceremony will be at 4 p.m. Dec. 3 in front of Bldg. 4200. Center Operations Directorate will hold a holiday open house from 1-3 p.m. Dec. 11 in Bldg. 4200, room 936. Customer and Employee Relations Directorate will hold a holiday reception from 1-3 p.m. Dec. 12 in Bldg. 4200, room 206. Science Directorate will hold a Christmas open house from 1-3 p.m. Dec. 13 in Bldg. 4201, room 505.

Upcoming classes

Hazardous waste training

Training will be conducted from 9-10:30 a.m. Dec. 4 in Morris Auditorium for all personnel involved in the generation and accumulation of hazardous and controlled waste at the Marshall Center. Personnel who are currently designated as a point of contact or alternate for hazardous and/or controlled waste accumulation sites are required to attend this training annually. If you have any questions, call John Troy at 544-4787.

Resume building briefings

The following NASA STARS Process and Employee Resume Building Briefings will be held in December. Briefings will be from 9:30-11:30 a.m. in Bldg. 4200, room G-13C on Dec. 4, and Dec. 11. Each session will be filled on a first-come, first-serve basis. Each session is limited to 25 participants.

Cost Control classes

The sixth in a series of project planning and analysis classes, Earned Value Management and Data Analysis, will be from 8 a.m.-noon Dec. 5, in Bldg. 4200, room G-13E. Other classes this year include Introduction to Configuration and Data Management, Dec. 12 and Continuous Risk Management Overview, Dec. 19. Classes resume in January with Project Analysis on Jan. 9, Schedule Assessment and Analysis, Jan. 16, and Managing a Technology Program, Jan. 23. The series of 10 classes will be repeated at future dates. Participants interested in attending should register via AdminSTAR.

Clubs and Meetings

Facilities Office breakfast

Facilities Office retirees will meet for breakfast at 8 a.m. Dec. 11 at the Shoney's on University Drive and Memorial Parkway. For more information, call Carl Gates at 232-2950.

Retiree social

The NASA/Marshall Retiree Association will hold its Christmas Social and Buffet Dinner Dec. 6 at the Valley Hill Country Club. The social begins at 6:30 p.m. with cash bar followed by buffet dinner at 7:15 p.m. All Marshall retirees and spouses are invited to participate. Cost is \$16 per person payable by check at the door. Dress is casual. Reservations are required. To make reservations or for more information, call Bob Pace at 881-6670.

Toastmasters International

NASA Lunar Nooners Toastmasters Club meets every Tuesday for lunch at 11:30 a.m. in the Bldg. 4610 cafeteria conference room. For more information, call Leslie Diggins at 544-0049 or visit the Web at: <http://www.toastmasters.org/>.

Lunch-time prayer

Join the lunch-time prayer and fellowship from noon-12:30 p.m. every Tuesday and Thursday in Bldg. 4200, room 432, or send prayer requests. For more information, send an e-mail to or call Johnnie Wilson at 544-1007.

Miscellaneous

Girl Scout Cookies

Girl Scouts are taking orders for cookies through Dec. 2. Direct sales will be Jan. 12-Feb. 16, 2002. If you don't know a Girl Scout, call 1-800-410-8338 to locate a troop near you. Proceeds from the cookie sale are used by troops for activities they have planned, and by the council to fund services and programs made available throughout the year to Girl Scouts in this area. Cookies are \$3 per box.

NASA Exchange

Barber shop

S&H Barber Shop in Bldg. 4203 offers a full range of services during regular hours 8 a.m.-4:45 p.m. Monday through Friday. For an appointment, call 881-7932.

Annual nut sale

The NASA Exchange annual nut sale is under way. Sales will be from 9 a.m.-4 p.m., Monday-Friday (excluding holidays) in Bldg. 4203, Space Shop.

Book fair

The NASA Exchange book fair will be held from 8 a.m.-4 p.m. Dec. 4-7 in the lobby of Bldg. 4203.

Employee Ads

Miscellaneous

- ★ Cannondale road bike w/helmet and riding apparel, \$450. 881-2932
- ★ SunMaster tanning bed, 18-bulb, \$1,000; sectional sofa, 3 piece, w/two recliners, connecting table, built-in phone, \$700. 604-1979
- ★ Minolta camera, 35mm, 50mm, 75-26mm, 2X Macro-converter, flash, and bag, \$300 obo. 890-0984
- ★ Portable tree stand, "Tree Lounge Bow Hunter Special," w/added accessories, \$325. (931) 962-1683
- ★ Two twin day beds, mattresses, bedspreads w/matching cushions, and corner table, \$250. 533-4824
- ★ Spanish dining set; table, four guest & two master chairs, leather backs/seats, \$150. 256-883-0439
- ★ Sofa, loveseat, rectangular and end tables, hunter green, taupe, and burgundy, \$650. 461-7025
- ★ Goodyear Eagle Performance tires, four, GPS P205/55R15, never used, \$250 obo. 859-6952
- ★ Chinese Chippendale dining room set w/glass top, maple, \$800; Hitachi Ultra-vision 55", 1000 lines, \$1,500. 348-5042
- ★ HP 8160, 233 Mhz, 6GB hard drive, 24X CD, 17" monitor, 32MB ATI, \$250. (256) 586-7375
- ★ Pentium Pro Dell 300 Mhz computer w/ 64MB RAM, 8gb hard drive, 17" monitor, WIN 95 \$300 obo. 882-1779
- ★ Hospital bed, electric 1x1, three directions, \$500 obo. 864-0155
- ★ Computer monitor, 17", for use with PC or Mac, \$40. 464-6928
- ★ Walnuts, \$1 per 50-lb. bag. 880-2290
- ★ Solid wood computer desk with hutch,

\$90; UMAX flatbed scanner, \$100; Queen quilt, \$60. 534-0939

- ★ Camper shell for pickup, Chevy S-10, GMC, etc., hi-rise fiberglass, \$475. (256) 922-1508
- ★ Well Cargo enclosed trailer, 24', interior - 19'8"Lx7'6"Wx6'6"H, \$3,850 obo. 883-2948
- ★ Christmas dishes: Bernardaud Limoges, six grenadiers dinner plates; Bavarian demitasse set with coffee pot. 882-6832

Vehicles

- ★ 1997 Buick Riviera, super-charged, red w/gray interior, 61K miles, \$14,000. (256) 423-2343
- ★ 1988 Ford 250 Lariat truck, overhead transmission, well maintained, \$3,400 obo. (256) 539-2572
- ★ 1996 Ford Explorer XLT, 110K miles, 5.9L, V-8, auto, 2WD, 4-door, tilt, cruise, PL/PW, \$8,500. (256) 828-0618
- ★ 1994 Nissan Maxima, champagne/beige, leather, alloy wheels, 94K miles, \$6,200 obo. 881-8674
- ★ 1999 Chevy LT Blazer, pewter w/gray leather interior, 4-door, 4WD, V-6, 49K miles, full-power, asking \$1K off top blue book. (256) 574-5098/Joe
- ★ 1993 Dodge Grand Caravan SE, one-owner, service records available, \$3,995. 895-9520
- ★ 1993 Ford Explorer XLT, 2WD, 4-door, V-6, one-owner, 161K miles, gray, \$3,200. (256) 737-7246
- ★ 1997 Honda Accord EX, 70K miles, gold pack, wood grain, chrome wheels, \$15,000 obo. (256) 851-9945
- ★ 1998 Ford Contour GL, red, 4-cyl., automatic, new Michelin tires, 120K highway miles, up-to-date maintenance, \$3,500. 797-7251
- ★ 1999 Mitsubishi Diamante, leather/

heated seats, CD, one-owner, 73K miles, \$16,800. 227-9121

- ★ 1978 Camaro Z28, 350, black, 40K miles, \$3,500 obo. 880-2859
- ★ 1986 Chevrolet Silverado, SWB, red, new 350, dual tanks, pos. traction, auto, \$4,900 obo. 247-0369
- ★ 1996 Dodge Avenger coupe, 71K miles, black, auto, many options, \$7,300 obo. 426-0900

Wanted

- ★ Ultraviolet (UV) light. 864-0155
- ★ Heavy-duty file cabinet, 3- or 4-drawers. 882-6100

Lost

- ★ Ladies white gold ring, four diamonds, REWARD. 544-2496
- ★ \$20 bill between Bldg. 4200 and 4203. 544-8911

Found

- ★ Palm M100 Personal Digital Assistant w/ cover, in Bldg. 4727 Conference Room. 544-3977
- ★ Notebook with several calculations and contacts listed, found in Bldg. 4312 lobby area, please call 544-3623 to claim/identify
- ★ Bldg. 4200 area: Ladies make-up bag; cooler; bracelet; ladies watch; Men's shaver. 544-7686 to claim/identify
- ★ Two pair of sunglasses, NASA picnic area and Bldg. 4312 Lobby. Call 544-7686 to claim/identify
- ★ Power drill, Bldg. 4491. Call 544-7686 to claim/identify
- ★ Notebook, Bldg. 4312 Lobby. Call 544-7686 to claim/identify

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